REMARKS

Rejection of claim 1is maintained under 35 U.S.C. § 103(a) over the Patrick reference and further in view of the Margulis reference. Claim 1 calls for a method that includes performing a first pixel transformation at the first virtual memory location in a virtual memory space, using a one-way re-mapping to write the transformed pixel data from the first virtual memory location to the virtual memory address generated for the second memory location, and transferring the pixel data to a memory controller using a memory controller client, in a forward, write-through direction.

One-way re-mapping involves generating a new "re-mapped" memory address and writing the pixel data to the new memory location. See Applicant's specification on page 4, lines 18-25 and Figure 3. For example, the pixel data written to a transfer function memory address range 29 goes through a transformation and has its address translated or re-addressed as indicated at 20 in Figure 3 of the Applicant's specification. Each transfer function 19 defined in media port target 16 has a defined output memory address range 28. See on page 6, lines 16-22. The pixel data and addresses generated by the various transfer functions 18 may be written back to the memory controller 14. See on page 7, in Applicant's specification in lines 8-10 and Figure 3.

Conventionally pixels are generated and deposited into memory. These pixels are then typically fetched from memory by a "fetch" engine. The operation is imposed and the pixels are then written back to the same memory location. This transformation requires an explicit fetch engine to be set up the parameters of the operation. Thus, when a number of transformations are involved with given pixel data, many fetch engines may be needed. The use of these fetch engines complicates the memory controller that must operate with all of the fetch engines contending for memory bandwidth. There is no easy way to cause multiple transformations to occur in a serial fashion. Thus, there is a need for better ways to impose transformations on pixel data in graphic/video engines.

In contrast, in a passive pixel data handling system, pixel data may be transferred to a transfer function, at a given address range. The transfer function may perform a transformation

and readdress the pixel data. For example, the data may be received through a media port target, which transfers the pixel data to a transfer function located at an address range in virtual memory. Each transfer function may readdress the pixel data and forward it to a media port write back engine or to the memory address range of another transfer function.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,

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Sanjeev K. Singh under 37 C.F.R. § 10.9(b)
Registration No. 28,994
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Suite 100
Houston, Texas 77024
(713) 468-8880 [Phone]
(713) 468-8883 [Fax]

Customer No.: 21906